

REMARKS

Claims 1-44 are pending in the present application. Claims 1, 12, 23 and 34 have been amended herein and new claims 45 and 46 have been added. Therefore, claims 1-46 are pending in this application. Applicants believe that the present application is in condition for allowance, which prompt and favorable action is respectfully requested.

Claim Rejections – 35 USC § 102

Claims 1-6, 8, 12-14, 16-17, 19, 23-28, 34-36, 38-39 and 41 are rejected under 35 USC § 102(b), as being anticipated by Kim et al. (U.S. Patent No. 6,2199,374) (hereinafter “Kim”). Applicant respectfully traverses the rejections, and reconsideration is requested. The following is a comparison between embodiments of the present invention and the cited reference.

Applicant notes that a claim is anticipated under 35 USC § 102 only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). “When a claim covers several structures or compositions, either generically or as alternatives, the claim is deemed anticipated if any of the structures or compositions within the scope of the claim is known in the prior art.” *Brown v. 3M*, 265 F.3d 1349, 1351, 60 USPQ2d 1375, 1376 (Fed. Cir. 2001) Further, “The identical invention must be shown in as complete detail as is contained in the ... claim.” *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). (See MPEP 2131).

Independent claim 1, for example, is amended herein to recite “a processing subsystem; and a transmitter subsystem coupled to the processing subsystem; wherein the processing subsystem is configured to cover different portions of an initial data stream, each portion comprising an I/Q pair of modulated symbols to be transmitted on a first wireless

communication channel with at least two different spreading codes”. (See Fig. 4, reference numeral 471, of the present application for support).

Kim, on the other hand, discloses that the I channel signals into which pilot symbols are periodically added are spread by a Wash code $W^I(n)$ at the first mixer 104 and the Q channel is spread by a Walsh code $W^Q(n)$ at the second mixer 105. The I channel signal spread by a Walsh code is spread by PN code $C(n)$ at the third mixer 106 and the Q channel signal is spread by PN code $c(n)$ at the fourth mixer 1076 (see Kim, column 3, lines 35-41).

Thus, Kim clearly discloses different Walsh codes used respectively for the different I and Q channels. In fact, in the Response to Arguments on page 2 of the Action, the Examiner states that Kim discloses covering/decoding different portions of an initial data stream comprising an I/Q pair of modulated symbols using at least two different spreading codes, *where the I channel is interpreted as a portion of the initial data stream and the Q channel is interpreted as a different portion of an initial data stream*. Based on the Examiner’s interpretation of Kim, independent claim 1 patentably defines over Kim, ince Kim fails to disclose covering different portions of an initial data stream, each portion comprising an I/Q pair of modulated symbols to be transmitted on a first wireless communication channel with at least two different spreading codes. Kim therefore does not teach or suggest claim 1.

Independent claim 23 recites features substantially similar to those described above for independent claim 1, and independent claims 12 and 34 recite decod[ing] different portions of the initial data stream, each portion comprising an I/Q pair of modulated symbols. Therefore, it is respectfully submitted that all the pending independent claims, as well as the claims depending therefrom, patentably distinguish over Kim for at least the reasons provided herein.

Claims 1-10 and 23-32 are rejected under 35 USC § 102(e) as being anticipated by Wiberg et al. (U.S. 2002/0172264) (hereinafter “Wiberg”). Applicant respectfully traverses the

rejections, and reconsideration is requested. The following is a comparison between embodiments of the present invention and the cited reference.

As stated above, independent claims 1 and 23 recite covering different portions of an initial data stream, each portion comprising an I/Q pair of modulated symbols to be transmitted on a first wireless communication channel with at least two different spreading codes.

Wiberg, on the other hand, generally discloses a common channelization code C 230 wherein both branches I and Q (separately) are spread (220/225) to the chip rate by a real-valued channelization code C 230. (See Wiberg, paragraph [0025]).

Thus, Wiberg clearly discloses different codes used for the each of the I and Q channels. As with Kim, in the Response to Arguments on page 2 of the Action, the Examiner states that Wiberg discloses covering different portions of an initial data stream comprising an I/Q pair of modulated symbols using at least two different spreading codes, *where the I channel is interpreted as a portion of the initial data stream and the Q channel is interpreted as a different portion of an initial data stream.*

Therefore, it is respectfully submitted that independent claims 1 and 23, as well as the claims depending therefrom, patentably distinguish over Wiberg for at least the reasons provided above with respect to Kim.

Claims 1-6, 8-10, 23-28 and 30-32 are rejected under 35 USC § 102(a) as being anticipated by Proctor, Jr. et al. (U.S. 2003/0035466) (hereinafter "Proctor"). Applicant respectfully traverses the rejections, and reconsideration is requested. The following is a comparison between embodiments of the present invention and the cited reference.

As stated above, independent claims 1 and 23 recite covering different portions of an initial data stream, each portion comprising an I/Q pair of modulated symbols to be transmitted on a first wireless communication channel with at least two different spreading codes.

Proctor, on the other hand, discloses a modulator 580 that provides an in-phase (i) and quadrature (q) signal path to a first pair of multipliers 506-i and 506-q. (See Proctor, paragraph [0058]). As clearly shown in Fig. 4 of Proctor, each of the “i” modulation signal and the “q” modulation signal is separately processed by multipliers 506, 512 and 508.

Thus, Proctor clearly discloses separate processes used for the different I and Q channels. As with Kim and Wiberg, in the Response to Arguments on pages 2-3 of the Action, the Examiner states that Proctor discloses covering different portions of an initial data stream comprising an I/Q pair of modulates symbols using at least two different spreading codes, *where the I channel is interpreted as a portion of the initial data stream and the Q channel is interpreted as a different portion of an initial data stream.*

Therefore, it is respectfully submitted that independent claims 1 and 23, as well as the claims depending therefrom, patentably distinguish over Proctor for at least the reasons provided above with respect to Kim and Wiberg.

Claim Rejections – 35 USC § 103

Claims 9, 10, 15, 20, 21, 30, 31, 37, 42 and 43 are rejected under 35 USC § 103(a) as being unpatentable over Kim in view of Sato (U.S. Patent No. 6,574,205), Wiberg or Dahlman et al. (U.S. Patent No. 6,222,875). Applicant respectfully traverses the rejections, and reconsideration is requested.

The pending dependent claims inherit the patentability of their respective base claims, which patentably distinguish over Kim and Wiberg for the reasons provided above. It is further submitted that neither Sato nor Dahlman et al. cures the deficiencies of Kim and Wiberg described above. Therefore, it is respectfully submitted that claims 9, 10, 15, 20, 21, 30, 31, 37, 42 and 43 are allowable over the prior art.

New Independent Claims 45 and 46

New independent claims 45 and 46 recite “instructions to cover different portions of the initial data stream, each portion comprising an I/Q pair of modulated symbols with at least two different spreading codes”, and “instructions to decode different portions of the initial data stream, each portion comprising an I/Q pair of modulated symbols, using at least two different spreading codes”, respectively. Therefore, the arguments provided above are further asserted for new independent claims 45 and 46, which are submitted to patentably distinguish over the prior art for at least the reasons provided herein.

CONCLUSION

In light of the amendments contained herein, Applicants submit that the application is in condition for allowance, for which early action is requested.

Please charge any fees or overpayments that may be due with this response to Deposit Account No. 17-0026.

Respectfully submitted,

Dated: August 28, 2007

By: /Peng Zhu/
Peng Zhu, Reg. No. 48,063
858-658-2389

QUALCOMM Incorporated
Attn: Patent Department
5775 Morehouse Drive
San Diego, California 92121-1714
Telephone: (858) 658-5787
Facsimile: (858) 658-2502